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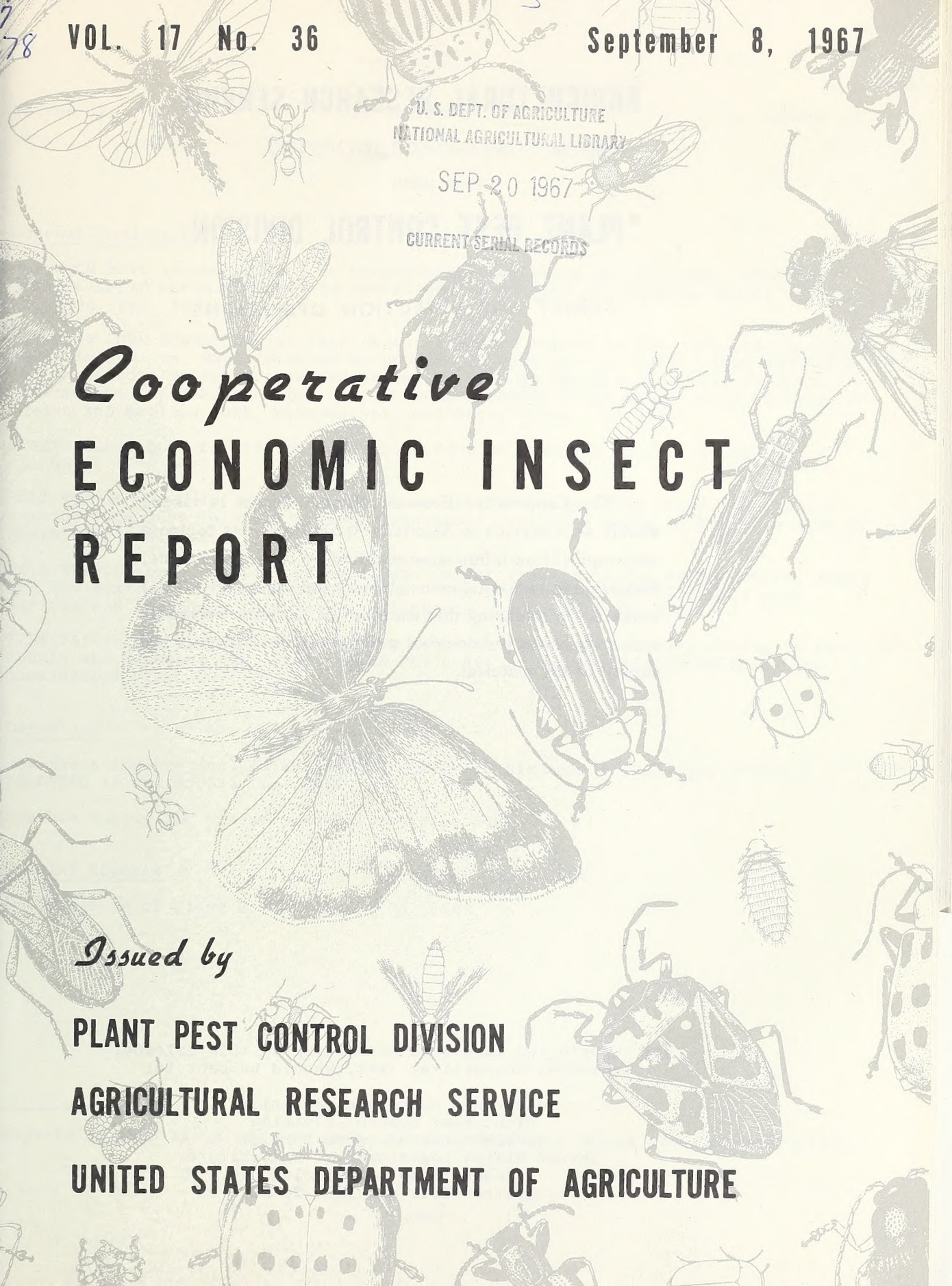
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Cooperative **ECONOMIC INSECT REPORT**

Issued by

PLANT PEST CONTROL DIVISION

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

SURVEY AND DETECTION OPERATIONS

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearinghouse and does not assume responsibility for accuracy of the material.

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Hyattsville, Maryland 20782

COOPERATIVE ECONOMIC INSECT REPORT

HIGHLIGHTS

Current Conditions

ARMYWORM moth increase heavy on southern Eastern Shore of Maryland. SPOTTED ALFALFA APHID serious threat to new stands of alfalfa in Arkansas Valley of Colorado. (pp. 829, 830).

EUROPEAN CORN BORER heavier than usual in Hudson Valley of New York and throughout Rhode Island (p. 830); problem on peppers in Michigan (p. 835). FALL ARMYWORM moths numerous in New York's Hudson Valley, larvae damaged late corn in areas of Mississippi and Nebraska. (p. 830). CABBAGE LOOPER moths heavy in light traps at Tunica and Rolling Fork, Mississippi, and Waco, Texas. (p. 843).

LYGUS BUGS threat to alfalfa seed production in Arkansas Valley of Colorado. (p. 832).

BOLL WEEVIL heavy in central and northern Alabama; migration heavy in counties outside regularly infested area of Tennessee; continues heavy in Florence area of South Carolina. (p. 833).

FALL WEBWORM heavy on various shade and forest trees in areas of Wisconsin, Iowa, and New Mexico, and pecans in Oklahoma. RED-HEADED PINE SAWFLY damage more serious and extensive this year in Minnesota. (pp. 836, 837, 838).

FACE FLY increasing on beef and dairy herds in Michigan, annoying cattle in Wisconsin and Missouri. (p. 838). HORN FLY heavy on some cattle in Oklahoma and Mississippi. (p. 839).

Detection

New State records include a DARKLING BEETLE in Alabama (p. 842) and COMSTOCK MEALYBUG in California (p. 837).

For new county and island records, see page 842.

Special Reports

Distribution of Giant Hornet (map). (p. 844).

Reports in this issue are for week ending September 1 unless otherwise indicated.

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WEATHER BUREAU'S 30-DAY OUTLOOK

SEPTEMBER 1967

The Weather Bureau's 30-day outlook for September calls for temperatures to average below seasonal normals from the Continental Divide to the Appalachians except for near to above normal over the northern Plains. Above normal temperatures are predicated west of the Continental Divide while near normal values are in prospect east of the Appalachians where large fluctuations are anticipated. Precipitation is expected to exceed normal east of the Appalachians, as well as in the Gulf Coast States, Colorado and New Mexico. Subnormal precipitation is indicated over the Midwest and the northern Plains as well as over the intermountain region and south Pacific coast. Rainfall amounts equaling or exceeding normal are indicated for the Pacific Northwest where unusually dry conditions have prevailed this summer. In other unspecified areas, near normal amounts are in prospect.

Weather forecast given here is based on the official 30-day "Resume and Outlook" published twice a month by the Weather Bureau. You can subscribe through the Superintendent of Documents, Washington, D. C. 20250. Price \$5.00 a year.

Weather continued on page 841.

SPECIAL INSECTS OF REGIONAL SIGNIFICANCE

ARMYWORM (Pseudaletia unipuncta) - MARYLAND - Moth increase heavy in blacklight trap at Snow Hill; over 100 per night. No damage noted. (U. Md., Ent. Dept.). GEORGIA - Larvae infesting fescue lawn in Coweta County. (Hamilton). Adults numerous on Clarke County Bermuda grass lawn. (Nolan). NEBRASKA - In less than 1 percent of corn ears checked in Dawson County. (Pruess, Jha).

ASTER LEAFHOPPER (Macrosteles fascifrons) - COLORADO - Decreasing, averaged 2 per 20 square feet, in all Arkansas Valley lettuce fields. Aster yellows ranged up to 20 percent (averaged 9) in advanced lettuce fields. (Schweissing).

CORN EARWORM (Heliothis zea) - ARIZONA - Very light in Cochise County, light in Pinal and Yuma County alfalfa. (Ariz. Coop. Sur.). NEW MEXICO - In some alfalfa in Las Cruces area and in northern Dona Ana County. (Elson). COLORADO - Infesting all Arkansas Valley corn; ranged from less than 1 to 55 percent (average 23). (Schweissing). NEBRASKA - Very light in Dawson County; ears about 1 percent infested. (Pruess, Jha). OKLAHOMA - Ranged 25-50 per 100 sweeps on Payne County alfalfa; averaged 4 per 25 peanut plants in Bryan County. (Okla. Coop. Sur.). ARKANSAS - No economic infestations on soybeans in southwest area. (Boyer). Infestations declined, few fields treated in southeast area. (Barnes). MISSISSIPPI - Light in some Yazoo and Tunica County soybean fields; some pod damage but scattered and noneconomic. (Kincade). Light and noneconomic in 5 Quitman County soybean fields. (Dinkins, Young). GEORGIA - Light to moderate on southern area soybeans. (French). VIRGINIA - Occasional larva in soybeans in Greenville, Southampton, Nansemond, and Isle of Wight Counties; few in peanuts in Isle of Wight, Greenville, and Southampton Counties. Larval damage 5 percent in 0.5-acre field of burley tobacco in Washington County. (Isakson, Derting). MARYLAND - Ears infested 50 percent in untreated sweet corn in Montgomery County; up to 80 percent in Queen Annes County. (U. Md., Ent. Dept.). NEW JERSEY - Increasing on lettuce throughout State. Adults increasing in blacklight traps in most areas. Time interval between sprays should be 2-3 days. (Ins.-Dis. Newsltr.). NEW YORK - Very light on sweet corn throughout Hudson Valley area; less than 1 moth per trap night. Larval infestations averaged 6 percent on margins, less than 1 percent in center of New Paltz sweet corn field. (N.Y. Wkly. Rpt., Aug. 28). RHODE ISLAND - Heavier than usual throughout State. (Mathewson et al., Aug. 25).

CORN LEAF APHID (Rhopalosiphum maidis) - COLORADO - Infesting all Arkansas Valley sorghum fields. (Schweissing). OKLAHOMA - Heavy on Johnston County grain sorghum. (Okla. Coop. Sur.). WISCONSIN - Declining. High in very few southern county corn fields. (Wis. Ins. Sur.).

GREENBUG (Schizaphis graminum) - TEXAS - Ranged 50-200 per linear foot on research wheat plots at Bushland, Potter County. (Daniels, Aug. 28).

PICKLEWORM (Diaphania nitidalis) - GEORGIA - Killing cucurbit plants by mining petioles, stems, and fruit in Spalding County. (Dupree).

POTATO LEAFHOPPER (Empoasca fabae) - DELAWARE - Adults and nymphs numerous on lima beans in southern Kent and Sussex Counties. (McCreary). MARYLAND - Very light in 15 alfalfa fields in Frederick and Queen Annes Counties. (U. Md., Ent. Dept.). VIRGINIA - Nymphs averaged 3 per sweep on Nottoway County alfalfa. (Isakson). MICHIGAN - Widespread in 6 Washtenaw and Livingston County alfalfa fields; injury noticeable on some crops. (Dowdy). WISCONSIN - Adults and nymphs numerous in many southern alfalfa fields. As many as 30 per sweep common. Nymphs numerous on Rock County lima beans primarily along margins. (Wis. Ins. Sur.). NEBRASKA - Averaged about 2 per 10 sweeps in Burt County alfalfa. (Keith, Schalk).

SPOTTED ALFALFA APHID (Therioaphis maculata) - NEW MEXICO - Decreasing, less than 0.25 to 0.5 teaspoon per 50 sweeps in alfalfa north of Las Cruces, Dona Ana County; very light in alfalfa in Roswell area, Chaves County. (Elson, Mathews). ARIZONA - Averaged 400 per 100 sweeps in alfalfa in San Simon area, Cochise County. (Ariz. Coop. Sur.). UTAH - Common in Delta area of Millard County; no conspicuous

damage. (Davis, Knowlton). COLORADO - Ranged 10-5,000 per 100 sweeps throughout Arkansas Valley on alfalfa. Serious threat to new stands. (Schweissing). NEBRASKA - Averaged 2.5 per 100 sweeps on Burt County alfalfa. (Schalk, Keith). MICHIGAN - Very low in 6 Washtenaw and Livingston County alfalfa fields. (Dowdy). VIRGINIA - Ranged 50-100 per 10 sweeps on Nottoway County alfalfa. (Isakson).

TOBACCO BUDWORM (Heliothis virescens) - MICHIGAN - Light in Lenawee and Monroe County blacklight traps. First catch of season. (Newman).

TOMATO HORNWORM (Manduca quinquemaculata) - COLORADO - Moths low in Arkansas Valley light traps; larvae noneconomic in tomato fields. (Schweissing).

CORN, SORGHUM, SUGARCANE

EUROPEAN CORN BORER (Ostrinia nubilalis) - RHODE ISLAND - Heavier than usual throughout State. (Mathewson et al., Aug. 25). NEW YORK - Moths heavier than usual in light traps and on sweet corn in Hudson Valley; larvae increasing in ears. Infestations ranged up to 20 percent in whorl stage sweet corn at Hurley; none in treated fields. Larval infestation averaged 3 percent in untreated sweet corn planting at Poughkeepsie and 2.4 percent in treated field at New Paltz. Second-brood larvae in Monroe County corn. (N.Y. Wkly. Rpt., Aug. 28). MARYLAND - Infestation averaged 37 percent on 17 farms sampled in Frederick County; second generation heavy in 4 fields. Lighter in Queen Annes County. (U. Md., Ent. Dept.). WISCONSIN - Infested up to 8 percent of ear tips on Rock and Iowa County sweet corn. Second-generation larvae first through third instar. Moths light in blacklight traps at most locations. Controls continue at many locations. (Wis. Ins. Sur.). SOUTH DAKOTA - Second to fifth instars on Yankton and Lincoln County corn; up to 4 per cob in untreated fields. (Jones).

FALL ARMYWORM (Spodoptera frugiperda) - NEW YORK - Moths numerous in Hudson Valley light trap; larval infestation 10 percent on sweet corn at New Paltz. (N.Y. Wkly. Rpt., Aug. 28). PENNSYLVANIA - Very light, scattered infestations on southern area corn; no serious damage to date. (Gesell). MARYLAND - Generally light. Frederick County field 84 percent infested; controls applied. (U. Md., Ent. Dept.). VIRGINIA - Larvae damaging late-planted Albermarle County corn. (Isakson, Butler). GEORGIA - Moderate on Mitchell County corn. (Lee). MISSISSIPPI - Heavy population severely damaged young, late-planted corn in Oktibbeha County. (Pitre). OKLAHOMA - In all terminals of late corn in Jackson County; moderate in Marshall County grain sorghum. (Okla. Coop. Sur.). NEBRASKA - Heavy on late Saunders County corn; mostly grown larvae in 24 percent of plants in one field. (Keith).

SORGHUM WEBWORM (Celama sorghiella) - ARKANSAS - Very heavy, averaged 100 per head, in Miller County grain sorghum. (Ark. Ins. Sur.). OKLAHOMA - Averaged 3 larvae and 4 pupae per head in Johnston County grain sorghum. (Okla. Coop. Sur.).

WESTERN BEAN CUTWORM (Loxagrotis albicosta) - NEBRASKA - Larvae up to 25 per 25 corn plants (averaged about 3) in 65 Dawson County fields. (Pruess, Jha). Pupation beginning. (Hagen).

CORN ROOTWORMS (Diabrotica spp.) - KANSAS - Abundance survey completed in 21 northeastern counties. D. virgifera most numerous in 14, D. longicornis most numerous in 6 counties. D. undecimpunctata howardi light in 17 counties. Total beetles per plant for all species ranged 0.8-4.9. (Simpson, Wilde, Clark). NEBRASKA - D. virgifera adults ranged 0-45 per 25 ears; averaged 13 per 25 ears in 65 fields of Dawson County corn (Pruess, Jha); ranged 9-15 per plant in Saunders County corn field (Keith, Jansen). SOUTH DAKOTA - D. virgifera and D. longicornis adults dominant on Yankton and Lincoln County corn; ranged 2-22 per plant and averaged 3-5 per stalk. D. undecimpunctata howardi very light. (Jones). WISCONSIN - D. longicornis counts continue high in southern counties; prevalent in some alfalfa near previously infested corn. Counties with unusually high numbers of D. longicornis: Crawford, Buffalo, Pepin, Pierce, St. Croix, Rock, Richland,

Vernon, Iowa, Green, Grant, Lafayette, Sauk, Dane, Columbia, Green Lake, Dodge, Winnebago, La Crosse, and Trempealeau. *D. virgifera* predominated in several fields in counties bordering Mississippi River and in areas in central part of State where other species not found. (Wis. Ins. Sur.). OHIO - *D. longicornis* adults exceeded 1.5 per plant in 17 of 37 fields in northwestern and north-central counties; 3+ per plant in 9 and averaged 10+ per plant in 3 of remaining 20 fields. *D. undecimpunctata howardi* lighter; ranged 1-5 per 10 plants in 11 fields, none in 26 fields. (Rose).

SPIDER MITES (*Tetranychus* spp.) - NEBRASKA - Scattered infestations in North Platte Valley. Some controls still applied. (Hagen). COLORADO - *T. urticae* light to moderate in some Arkansas Valley corn and none to very light on Larimer County corn; decreasing in all areas of Arkansas Valley except Prowers County. (Schweissing, Alldredge).

TURF, PASTURES, RANGELAND

FALL ARMYWORM (*Spodoptera frugiperda*) - GEORGIA - Light on golf greens in Decatur County. (French).

AN OLETHREUTID MOTH (*Bactra verutana chrysea*) - CALIFORNIA - Larvae and pupae heavy on 5 acres of nutgrass at Orland, Glenn County. (Cal. Coop. Rpt.).

A SOD WEBWORM (*Crambus* sp.) - OKLAHOMA - Heavy on lawns in Altus, Jackson County. (Okla. Coop. Sur.).

A FLEA BEETLE (*Chaetocnema* sp.) - CALIFORNIA - Adults heavy on dichondra lawns at Escondido, San Diego County. (Cal. Coop. Rpt.).

A FALSE CHINCH BUG (*Nysius* sp.) - NEVADA - Heavy in yards, lots, and rangeland in southern Washoe County. (Lukens et al.).

FORAGE LEGUMES

ALFALFA CATERPILLAR (*Colias eurytheme*) - NEVADA - Larvae and adults heavy in Clark County alfalfa hay. (Nev. Coop. Rpt.). Light to medium in Lake Valley, Lincoln County. (Miller). ARIZONA - Heavy in Cochise, Maricopa, and Pinal County alfalfa. Light in north Gila Valley, Yuma County. (Ariz. Coop. Sur.). NEW MEXICO - Up to 15 per 50 sweeps in alfalfa north of Las Cruces, Dona Ana County; ranged 6-8 per 25 sweeps in Roswell area, Chaves County. (Elson, Mathews). COLORADO - Increased in most areas of Arkansas Valley past 14 days. Larvae as high as 800-1,000 per 100 sweeps in some alfalfa; adults very numerous in many fields. (Schweissing). NEBRASKA - Larvae abundant, ranged 2-12 (averaged about 7) per 10 sweeps, on alfalfa checked in Burt County. (Keith, Schalk). IOWA - Larvae averaged 3 per 10 sweeps on southeast area alfalfa. (Iowa Ins. Sur.).

GREEN CLOVERWORM (*Plathypena scabra*) - IOWA - Larvae averaged 5 per 10 sweeps in southeast area alfalfa. (Iowa Ins. Sur.). NEBRASKA - About 2 per 10 sweeps on Burt County alfalfa. (Keith, Schalk).

ALFALFA WEEVIL (*Hypera postica*) - COLORADO - Adults and larvae continue to appear in small numbers in Pueblo, Crowley, Otero, and Larimer Counties. (Schweissing, Alldredge). IOWA - No adults or larvae in 100-sweep samples in 6 Lee County fields. (Iowa Ins. Sur.). MICHIGAN - Remains very low in 6 Washtenaw and Livingston County alfalfa fields. (Dowdy). MARYLAND - Averaged 0.3 adult and 0.3 larva per sweep in 10 Frederick County fields sampled; one field with 2 larvae per sweep. In Queen Annes County, one field with 1 adult and 1 larva per sweep; none in 4 other fields. (U. Md., Ent. Dept.). VIRGINIA - Adults ranged 5-7 per 10 sweeps in alfalfa in Nottoway County; no larvae. (Isakson). MISSISSIPPI - Adults active on ground in Pontotoc County alfalfa fields; averaged 3 per 20 square feet in soil trash samples. Collected 9 larvae in 150 sweeps. No eggs in 200 stems examined. (Pitre).

CORN ROOTWORMS (*Diabrotica* spp.) - NEBRASKA - Adults per 10 sweeps in Burt County alfalfa: *D. virgifera* 2-4, *D. undecimpunctata howardi* 1-2, *D. longicornis* 0-1. (Keith, Schalk).

PEA APHID (*Acyrtosiphon pisum*) - NEW MEXICO - Decreasing, less than 0.25 to 0.5 teaspoon per 50 sweeps in alfalfa north of Las Cruces, Dona Ana County; very light in Roswell area, Chaves County. (Elson, Mathews). COLORADO - Averaged 300-400 per 100 sweeps in Arkansas Valley alfalfa. (Schweissing). NEBRASKA - Light, 2-5 per 10 sweeps, on Burt County alfalfa. (Keith, Schalk). IOWA - Increasing on southeast area alfalfa, ranged 28-65 per 10 sweeps. (Iowa Ins. Sur.). WISCONSIN - Low in alfalfa, 10+ per sweep unusual in southern half of State. (Wis. Ins. Sur.). MICHIGAN - Remains relatively low in 6 Washtenaw and Livingston County alfalfa fields. (Dowdy). MARYLAND - Spotty in Frederick County; of 10 fields sampled, 3 had 25 or more per sweep and 7 had none. Very light in Queen Annes County. (U. Md., Ent. Dept.).

LYGUS BUGS (*Lygus* spp.) - UTAH - Ranged 3-12 per 10 sweeps in alfalfa at Richmond, Cache County. (Knowlton). ARIZONA - Increasing on Cochise County alfalfa. Range 350-400 per 100 sweeps in Stewart district, Cochise County. Heavy in Yuma and Maricopa Counties. (Ariz. Coop. Sur.). NEW MEXICO - Ranged 0-10 per 50 sweeps north of Las Cruces in Dona Ana County (Elson). Ranged 8-10 per 25 sweeps in Roswell, Chaves County. (Elson, Mathews). COLORADO - Populations in Arkansas Valley range 0-300 per 100 sweeps; threat to alfalfa seed production. (Schweissing). NEBRASKA - Ranged 2-10 (averaged about 6) per 10 sweeps on Burt County alfalfa. (Keith, Schalk). IOWA - *L. lineolaris* averaged 11 per 10 sweeps in alfalfa and red clover in southeast area. (Iowa Ins. Sur.).

ALFALFA PLANT BUG (*Adelphocoris lineolatus*) - MICHIGAN - Relatively common this season; outnumber tarnished plant bugs in samples taken. (Dowdy). WISCONSIN - Averages 5-10 per sweep in many southern area alfalfa fields. Adults predominate in most southeastern counties but late instars still common. (Wis. Ins. Sur.). NEBRASKA - Averaged about 25 per 10 sweeps on Burt County alfalfa; *A. rapidus* less than 1 per 10 sweeps. (Keith, Schalk).

MEADOW SPITTLEBUG (*Philaenus spumarius*) - IOWA - Adults averaged 7 per 10 sweeps in alfalfa and red clover in southeast area. (Iowa Ins. Sur.). WISCONSIN - Adults continue numerous in most fields; range 5-15 per sweep in most areas. (Wis. Ins. Sur.). MICHIGAN - Adults common but at lower levels than indicated for chemical control. (Dowdy). MARYLAND - Adults increasing in alfalfa; averaged 2 per sweep in 10 Frederick County fields. Adults 0-5 per sweep in 5 Queen Annes County fields. (U. Md., Ent. Dept.).

THREE-CORNERED ALFALFA HOPPER (*Spissistilus festinus*) - ARIZONA - Light to heavy in Cochise, Graham, Maricopa, Pinal, and Yuma County alfalfa fields. (Ariz. Coop. Sur.). NEW MEXICO - Ranged 0-8 per 50 sweeps in alfalfa north of Las Cruces in Dona Ana County and ranged 12-15 per 25 sweeps in alfalfa in Roswell, Chaves County. (Elson, Mathews).

SOYBEANS

GREEN CLOVERWORM (*Plathypena scabra*) - NEBRASKA - Ranged 4-7 (averaged 6) per 25 sweeps in Saunders County. (Keith, Jansen). ILLINOIS - Due to parasites, larvae decreasing in central district; larvae ranged 1-2 per 25 sweeps in central and northern districts. (Ill. Ins. Rpt.). MISSISSIPPI - Larvae averaged approximately 10 per foot of row in surveyed fields in Yazoo and Tunica Counties. (Kincade). VIRGINIA - Larvae averaged 12 per 10 sweeps in Brunswick County field; ranged 0-6 per 10 sweeps in other southern area fields. (Isakson).

FALL ARMYWORM (*Spodoptera frugiperda*) - VIRGINIA - Occasional larva in fields in Greensville, Southampton, Nansemond, and Isle of Wight Counties. (Isakson). MISSISSIPPI - Scattered infestations noneconomic in some Quitman County fields. (Dinkins, Young).

A NOCTUID MOTH (Pseudoplusia includens) - ALABAMA - Larvae light to medium, leaves "ragged", in Mobile, Baldwin, Monroe, and other southwest counties. (McQueen).

BEAN LEAF BEETLE (Cerotoma trifurcata) - NEBRASKA - Averaged 11 per 25 sweeps in Saunders County. (Keith, Jansen). IOWA - Light, averaged less than 1 per 10 sweeps. (Iowa Ins. Sur.). VIRGINIA - Light in southern area, ranged 0-3 per 10 feet of row. (Isakson).

CORN ROOTWORMS (Diabrotica spp.) - NEBRASKA - Adults per 25 sweeps in Saunders County: D. undecimpunctata howardi ranged 4-10 (averaged about 8); D. virgifera ranged 1-6 (averaged about 4); D. longicornis ranged 0-3 (averaged less than 1). (Keith, Jansen).

MEXICAN BEAN BEETLE (Epilachna varivestis) - VIRGINIA - Adults and larvae damaging fields in Brunswick, Greenville, Southampton, Nansemond, and Isle of Wight Counties. First and second instars noneconomic in Nottoway and Charlotte Counties. (Isakson). GEORGIA - Light to moderate in southern area. (French).

THREE-CORNERED ALFALFA HOOPER (Spissistilus festinus) - ARKANSAS - Light in early soybeans. Heavy in 2 late fields in Hempstead County. Averaged 149 nymphs on 15 row feet, 48 adults in 100 sweeps, and 28 percent girdled plants in 1 field. Heaviest of last 2 years in Coastal Plain black soil area of Hempstead County; 44 percent girdled plants in untreated check plot. (Ark. Ins. Sur.).

GREEN STINK BUG (Acrosternum hilare) - MISSISSIPPI - Averaged 2 per 3 feet of row in spots throughout 5 soybean fields in Quitman County. (Dinkins, Young).

PEANUTS

RED-NECKED PEANUTWORM (Stegasta bosqueella) - OKLAHOMA - In 80 percent of terminals in Johnston County. (Okla. Coop. Sur.).

COTTON

BOLL WEEVIL (Anthonomus grandis) - SOUTH CAROLINA - Population continues heavy in Florence area. Adults ranged 0-39 per 100 squares and larval infestations ranged 1-87 percent in treated plots. Insufficient squares in untreated plots for counts. (Taft et al., Aug. 30). TENNESSEE - Migration heavy in counties outside regularly infested portion of cotton-growing area. Infestations up to 40 percent common as far north as Dyer County; averaged 5 percent previous week. Much damage expected if controls not applied, especially in late cotton. Close observation of late cotton over northern area recommended. (Locke). GEORGIA - Migration increasing, number of squares decreasing in Spalding County. (Beckham). ALABAMA - Very heavy in fruiting cotton in central and northern areas; controls limited by rain. (McQueen). MISSISSIPPI - Under control in south delta region. No reports of heavy increases in field populations. Average infestation by county: Quitman 12 percent in 10 fields, Issaquena 12 percent in 18, Yazoo 8 percent in 16 fields. (Dinkins, Young). ARKANSAS - Infested 89 percent or 4,292 of 4,816 fields compared with 88 percent last week. (Ark. Ins. Sur.). TEXAS - Increasing in High Plains area but lighter than in 1966; infesting 250 fields in control zone. Heaviest in Kent County. Total of 18 fields infested above the Cap Rock compared with 91 last year. Diapause control program to start September 5. (Rummel, Aug. 29). No weevils found in El Paso section in area infested in 1966. (PPC South. Reg. July Rpt.). OKLAHOMA - Infestations averaged 21 percent in Bryan County; ranged 8-39 percent in Jackson County, 8-30 percent in Grady County, and 30-40 percent in irrigated fields in Burns Flat area, Washita County. (Okla. Coop. Sur.). MISSOURI - Percent punctured squares ranged 10-64 in 34 of 232 scouted fields. Chemical controls applied to portions of 15 fields or 205 acres. (Jones).

BOLLWORMS (Heliothis spp.) - SOUTH CAROLINA - Population continues heavy in Florence area. Larval infestation ranged 0-30 percent in treated plots. Live larvae ranged 0-5 per 100 squares in treated plots. Insufficient number of squares in untreated plots for counts. Adults in light trap: H. zea 1,303, H. virescens 18. (Taft et al., Aug. 30). TENNESSEE - Present in all fields surveyed in western area; all larval stages present. Further increase expected. (Locke). GEORGIA - Increasing in Spalding County. (Beckham). MISSISSIPPI - Remained generally light in south delta area. Egg counts increased sharply indicating future population increase. Average percent infestation by county: Quitman 2 in 10 fields, Issaquena 6 in 18 (egg counts increasing), Yazoo 3 in 16 fields (egg counts very heavy in all fields checked; ranged 20-40 per 100 terminals). (Dinkins, Young). ARKANSAS - Infested 86 percent or 4,140 of 4,816 fields compared with 89.5 percent last week; moths light on sugar lines in southeast area and in light traps in southeast and southwest areas. (Ark. Ins. Sur.). MISSOURI - Ranged 1-10 larvae per 100 plants in 207 of 232 fields. Chemical controls applied in 45 fields totaling 1,066 acres. (Jones). OKLAHOMA - H. zea ranged 4-33 percent. Square damage ranged 1-20 percent in Jackson County. Larvae averaged 5 per 100 squares in Bryan County; heavy in Marshall County and light in Mayes County. (Okla. Coop. Sur.). TEXAS - Light in Garza, Martin, Lynn, Parmer, Dawson, Cochran, Lubbock, and Yoakum Counties in High Plains area. (Rummel, Aug. 29). ARIZONA - H. zea light in Cochise County. Damage widespread and continues heavy in Pinal, Maricopa, and Yuma Counties. (Ariz. Coop. Sur.).

SALT-MARSH CATERPILLAR (Estigmene acrea) - ARIZONA - Increasing in Maricopa, Pinal, and Yuma Counties. (Ariz. Coop. Sur.).

APHIDS - TENNESSEE - Increasing throughout western area. Conditions ideal for further increase. (Locke).

LYGUS BUGS (Lygus spp.) - ARIZONA - Light in Cochise County. Counts high in Maricopa, Pinal, and Yuma Counties. (Ariz. Coop. Sur.). MISSOURI - Ranged 1-10 per 100 plants in 172 of 232 fields scouted. (Jones).

SPIDER MITES - TENNESSEE - Unchanged since last period; conditions not favorable for rapid increase. (Locke). GEORGIA - Light to moderate in Spalding County. (Beckham). ARKANSAS - Increasing due to dry weather; controls applied to 37 fields. (Ark. Ins. Sur.). MISSOURI - Present in 15 of 232 scouted fields. (Jones).

SUGARBEETS

SPINACH LEAF MINER (Pegomya hyoscyami) - COLORADO - Larval damage very light to moderate in scattered fields in Berthoud area, Larimer County. (Alldredge).

MISCELLANEOUS FIELD CROPS

BANDED SUNFLOWER MOTH (Phalonia hospes) - NORTH DAKOTA - Populations of this species and Homoeosoma electellum down from last year. Percent heads infested averaged 28 compared with 60 last year. Larvae per head averaged 2 compared with 9 last year. Percent infestation by county: Cass 0-80 (averaged 25), Grand Forks 0-80 (averaged 26), Steele 0-70 (averaged 30). Average larval count per head by county: Cass 2, Grand Forks 1.6, Steele 2.4, and Traill 2.2. H. electellum less than 1 percent of larvae found. (Brandvik).

POTATOES, TOMATOES, PEPPERS

EUROPEAN CORN BORER (Ostrinia nubilalis) - MICHIGAN - Problem on peppers not abating. Fruit infestation as high as 40 percent in unsprayed fields and 3 percent or less in sprayed fields. (Janes).

GREAT BASIN WIREWORM (Ctenicera pruinina) - WASHINGTON - Light to moderate, but severe in spots, on 100-acre potato field in Burbank, Walla Walla County. (Onsager).

POTATO FLEA BEETLE (Epitrix cucumeris) - MICHIGAN - Continues heavy in some potato fields. (Janes).

POTATO APHID (Macrosiphum euphorbiae) - DELAWARE - Moderate throughout 20-acre potato field in Sussex County. (MacCreary).

GREEN PEACH APHID (Myzus persicae) - DELAWARE - Common throughout 70-acre pepper field in Sussex County. (MacCreary).

BEANS AND PEAS

VARIEGATED CUTWORM (Peridroma saucia) - CALIFORNIA - Larvae heavy and damaging beans in Half Moon Bay, San Mateo County. (Cal. Coop. Rpt.).

SALT-MARSH CATERPILLAR (Estigmene acrea) - CALIFORNIA - Larvae moderate and damaging lima beans in Santa Maria, Santa Barbara County. (Cal. Coop. Rpt.).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - Damaging lima beans in Kent and Sussex Counties; 46 larvae taken in 15 feet of row in 1 field. (MacCreary).

COLE CROPS

CABBAGE LOOPER (Trichoplusia ni) - NEW JERSEY - Increasing in many southern area crucifer fields; controls advised. (Ins.-Dis. Newsltr.). DELAWARE - Numerous, damaging cabbage in Kent County. (MacCreary). MICHIGAN - First moths of season in light traps. (Janes).

IMPORTED CABBAGEWORM (Pieris rapae) - CALIFORNIA - Larvae heavy on kale in Modesto, Stanislaus County. (Cal. Coop. Rpt.). MARYLAND - Large increase on cabbage and broccoli at Salisbury; on kale at Cumberland. (U. Md., Ent. Dept.).

GENERAL VEGETABLES

CABBAGE LOOPER (Trichoplusia ni) - COLORADO - Moths in light traps in Arkansas Valley. Larval infestation ranged 10-60 percent (average 33) in lettuce fields. (Schweissing). NEW JERSEY - Infesting many Cumberland County lettuce fields. (Ins.-Dis. Newsltr.).

ASPARAGUS BEETLES (Crioceris spp.) - NEW JERSEY - C. asparagi and C. duodecimpunctata larval damage extensive on asparagus brush in field near Pedricktown. (Ins.-Dis. Newsltr.).

ONION THRIPS (Thrips tabaci) - COLORADO - Decreasing in all onion areas of Arkansas Valley and Larimer County. (Schweissing, Alldredge).

DECIDUOUS FRUITS AND NUTS

APPLE MAGGOT (Rhagoletis pomonella) - MICHIGAN - Emergence decreased past few weeks due to dry weather. (Wooley). WISCONSIN - Adults remain heavy in trap areas; highest (73-106) at west Stoughton and Madison, Dane County, and Rolling Ground, Crawford County; controls should continue. (Wis. Ins. Sur.). MINNESOTA - Total of 3 adults taken in 3 traps in Two Harbors area; none in Minnetonka area. (Minn. Ins. Rpt.).

PLUM CURCULIO (Conotrachelus nenuphar) - WISCONSIN - Unusually heavy on apples in Winnebago County. (Wis. Ins. Sur.).

EUROPEAN EARWIG (Forficula auricularia) - COLORADO - Moderate on peaches in Jefferson County; adults damaging ripening fruit. (Hantsbarger).

EUROPEAN RED MITE (Panonychus ulmi) - NEW YORK - Increasing in Monroe County, controls effective. (N.Y. Wkly. Rpt., Aug. 28). NEW JERSEY - Abundant in many southern county apple orchards. (Ins.-Dis. Newsltr.). OHIO - Ranged 25-75 mites per leaf in Hardin County apple orchard; some bronzing. (Rose). MICHIGAN - Problem in some southwestern and southeastern area orchards. (Wooley).

WALNUT CATERPILLAR (Datana integerrima) - WISCONSIN - Half-grown larvae damaging walnut trees in southwest area. (Wis. Ins. Sur.). OKLAHOMA - Full-grown larvae on pecan trees in Muskogee County. (Okla. Coop. Sur.). VIRGINIA - Larvae damaging walnut in Washington County. (Isakson, Derting).

FALL WEBWORM (Hyphantria cunea) - OKLAHOMA - Second-generation larvae on pecan trees in Sequoyah, Cherokee, Tulsa, and Wagoner Counties. (Okla. Coop. Sur.).

PECAN WEEVIL (Curculio caryae) - OKLAHOMA - Heavy on pecans in Choctaw County, light in Mayes County. (Okla. Coop. Sur.).

APHIDS - OKLAHOMA - Monellia costalis averaged 100 per 100 leaves on pecans in Johnston County, Myzocallis caryaefoliae averaged 20 per 100 leaves. (Okla. Coop. Sur.).

CITRUS

CITRUS THRIPS (Scirtothrips citri) - ARIZONA - Treatments continue in nurseries to protect young terminals in Yuma County. (Ariz. Coop. Sur.).

YELLOW SCALE (Aonidiella citrina) - FLORIDA - Adults collected on lemon leaves at nursery along Suwannee River, Gilchrist County. (Graham, Aug. 25). This is a new county record. (Fla. Coop. Sur.).

OTHER TROP. & SUBTROP. FRUITS

A LEAFHOPPER (Oncometopia nigricans) - FLORIDA - Adults abundant on young mango trees (Mangifera indica) at Homestead, Dade County. (Wolfenbarger, Aug. 23).

SMALL FRUITS

WESTERN GRAPE LEAF SKELETONIZER (Harrisina brillians) - ARIZONA - Heavily infested and damaged backyard grape plantings in Huachuca City area, Cochise County. (Ariz. Coop. Sur.). NEW MEXICO - Heavy on grapes in Las Cruces gardens, Dona Ana County. (Durkin).

A LEAF ROLLER MOTH (Platynota stultana) - CALIFORNIA - Larvae moderate on grape bunches in Escalon, San Joaquin County; damaging grapes for second season. Causing much concern due to fruit damage and extent of infestations. (Cal. Coop. Rpt.).

GRAPE CANE GALL MAKER (Ampelogypter sesostris) - OHIO - Damage heavy on grapes in vineyards on South Bass Island; lighter in Ottawa County vineyards; adults emerging. (Still).

ORNAMENTALS

AZALEA CATERPILLAR (Datana major) - GEORGIA - Heavy on azaleas in Camden and Clarke Counties. (Williams, Hunt).

AZALEA LEAF MINER (Gracillaria azaleella) - CALIFORNIA - Heavy on azalea plants in Danville, Contra Costa County. (Cal. Coop. Rpt.).

AZALEA WHITEFLY (Pealius azaleae) - OHIO - Moderate to heavy on 8,000 plants in Lake County. (Walker).

TEA SCALE (Fiorinia theae) - FLORIDA - All stages moderate on 50 percent of 200 camellias and 80 percent of 100 Burford holly plants at nursery in Longwood, Seminole County. (Kipp).

WHITE PEACH SCALE (Pseudaulacaspis pentagona) - FLORIDA - Moderate on stems of 87 nursery plants of golden raintree (Koelreuteria sp.) at Lake Helen, Volusia County. (Roberts, Holley, Aug. 23).

FOREST AND SHADE TREES

ELM LEAF BEETLE (Pyrrhalta luteola) - CALIFORNIA - Eggs and larvae heavy on elm in San Jacinto, Riverside County. This is a new county record. Adults heavy on cottonwood in Twain Harte, Tuolumne County. Heaviest in State for past several years. (Cal. Coop. Rpt.). NEVADA - Damage very heavy to elms in Caliente, Lincoln County. (Miller). UTAH - Damage heavy to elm foliage in Fillmore area, Millard County. This is a new county record. (Roberts, Knowlton). NEW MEXICO - Heavy on elms in Roswell, Chaves County. This is a new county record. (Chappell).

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus) - COLORADO - Heavy on American elm near Canon City, Fremont County. (Wagner).

LOCUST BORER (Megacyllene robiniae) - OHIO - Larval mining serious problem on black locust in southeastern and east-central areas. (Rose).

FALL WEBWORM (Hyphantria cunea) - WISCONSIN - Heavier than normal in State; many half-grown and some full-grown larvae. Webs larger than usual. (Wis. Ins. Sur.). IOWA - Heavy on elm, ash, and walnut in southeast area; up to 5 webs on some trees. (Iowa Ins. Sur.). NEW MEXICO - Heavy on shade trees at Fort Stanton, Lincoln County; ranged 10-20 webs per tree on walnut. (Heninger).

BOXELDER LEAF ROLLER (Gracillaria negundella) - CALIFORNIA - Severe on boxelder in Alturas, Modoc County; browning widespread. (Cal. Coop. Rpt.).

COMSTOCK MEALYBUG (Pseudococcus comstocki) - CALIFORNIA - Heavy on fruitless mulberry trees (Morus sp.) in Porterville, Tulare County. Collected by E. Crew August 23, 1967. Det. by G. Buxton, verified by D. Miller. This is a new State record. Delimiting survey shows many mulberry trees and very few catalpa trees infested. Mulberry severely damaged. (Cal. Coop. Rpt.).

NANTUCKET PINE TIP MOTH (Rhyacionia frustrana) - OKLAHOMA - Damage heavy in ornamental pine plantings in Mayes County. (Okla. Coop. Sur.).

ENGRAVER BEETLES (Ips spp.) - GEORGIA - Heavy on pines in Worth and Tift Counties. (French).

SARATOGA SPITTLEBUG (Aphrophora saratogensis) - MINNESOTA - Total of 35 heavily infested acres on 4 plantations in Big Sandy Lake area near McGregor sprayed for adult control August 17-19. (Minn. Ins. Rpt.).

COCONUT SCALE (Aspidiotus destructor) - PENNSYLVANIA - Heavy on spruce in Delaware County. Det. by G. B. Slesman. (Gesell, Aug. 2). This is second location in county where this scale insect has been collected on spruce. (Slesman). Reported in CEIR 17(18):117 as new State record. (PPC).

HOWARD SCALE (Abgrallaspis howardi) - FLORIDA - Infesting redbay at Cedar Key, Levy County. (D'Ascoli, Aug. 24). New Division of Plant Industry host record. (Fla. Coop. Sur.).

AN APHID (Eulachnus agilis) - OHIO - Increasing on Scotch pine in northeastern area; needle drop heavy in many plantations. (Campbell, Balderston).

RED-HEADED PINE SAWFLY (Neodiprion lecontei) - MINNESOTA - Damage more serious and extensive this year, especially in Moose Lake and Willow River area; 8-acre jack pine plantation completely defoliated and moderate to heavy on several nearby plantations with light damage to Norway pine in 2 other areas. Damage heavy and spotted on roadside jack pine from Hinckley to Barnum along U.S. Highway 61. (Minn. Ins. Rpt.).

INTRODUCED PINE SAWFLY (Diprion similis) - OHIO - Late larvae common throughout 50-acre Scotch pine planting in Lake County. (Campbell, Balderston). MINNESOTA - Larvae damaging white pine in St. Paul area. (Minn. Ins. Rpt.).

MAN AND ANIMALS

MOSQUITOES - LOUISIANA - Larvae of Anopheles crucians, Aedes vexans, A. sollicitans, Culex pipiens quinquefasciatus, C. salinarius, and Psorophora confinnis taken in Jefferson Parish August 18-25; P. confinnis and A. sollicitans adults increasing in light traps. (Stokes). WISCONSIN - Annoyance light in most areas, cool temperatures decreasing mosquito activity. (Wis. Ins. Sur.). MINNESOTA - Decreasing in traps in Metropolitan Mosquito Control District; 2,669 females taken August 19-26 lowest since June 24. Egg hatches of 30 and 55 percent from submerged test soil samples indicate fall diapause underway. (Minn. Ins. Rpt.). UTAH - Annoying about farms and communities in Cache County and in Corinne and Penrose area, Box Elder County. (Knowlton).

FACE FLY (Musca autumnalis) - MARYLAND - Ranged 2-25 per animal on 9 Frederick County dairy herds. (U. Md., Ent. Dept.). MICHIGAN - Adults increasing on many beef and dairy herds in central area; up to 50+ (average 30) per face on some animals in Shiawassee County beef herd August 28. (Dowdy). WISCONSIN - Numerous in some areas; slight annoyance to cattle throughout State. (Wis. Ins. Sur.). MISSOURI - Ranged up to 55 (averaged 16.5) per head on 30 cows in large Atchison County herd and ranged 1-14 (averaged 7.78) per head on 15 calves. (Munson). NEBRASKA - Ranged 2-18 (averaged 7.4) and 0-7 (averaged 3.0) per face on 2 herds near Lincoln, Lancaster County. (Perdue). WASHINGTON - Adult taken in Okanogan County August 18. (Pennell).

SCREW-WORM (Cochliomyia hominivorax) - Total of 12 cases reported in U.S. August 27-September 2 as follows: TEXAS - Crockett 1, Val Verde 1, Real 1, Terrell 2, Brewster 5, Pecos 1, Kimble 1. Total of 112 cases reported in portion of Barriers Zone in Republic of Mexico as follows: Baja California 5, Territorio sur de Baja California 24, Sonora 17, Chihuahua 34, Coahuila 25, Nuevo Leon 3, Tamaulipas 4. Total of 93 cases reported in Mexico south of Barrier Zone. Barrier Zone is area where eradication operation underway to prevent establishment of self-sustaining population in U. S. Sterile screw-worm flies released: Texas 34,064,000; Arizona 200,000; Mexico 83,550,000. (Anim. Health Div.).

HORN FLY (Haematobia irritans) - MARYLAND - Up to 150 per animal on 9 Frederick County dairy herds, heavy in untreated heifer and calf lot. (U. Md., Ent. Dept.). MISSISSIPPI - Averaged 1,000 per animal on 140 head of untreated cattle in Yazoo County; averaged 500-600 per head on 60 untreated heifers. (Hoelscher). MISSOURI - Ranged 10-400 (averaged 132) per head on 30 cows in Atchison County herd and 20-60 (averaged 36) per animal on 15 calves. (Munson). OKLAHOMA - Averaged 800 per head on cows, 1,000 per head on yearlings, and 1,250 per head on 2-year-old steers in Payne County; ranged 400-500 per head on cows in Major County. Heavy in Noble and Mayes Counties, moderate in Cleveland County. (Okla. Coop. Sur.). NEBRASKA - Generally light in Lancaster County. (Campbell). UTAH - Ranged 10-75 per head on cattle in Franklin Basin and Logan Canyon, Cache County. (Knowlton).

STABLE FLY (Stomoxys calcitrans) - MARYLAND - Ranged 1-25 per animal in 9 Frederick County dairy herds. (U. Md., Ent. Dept.). WISCONSIN - Severely annoying cattle on warm days. Activity generally reduced due to cooler weather (Wis. Ins. Sur.). NEBRASKA - Ranged 20-25, 10-15, and 10-15 per leg on 3 groups of feedlot cattle in Lancaster County; ranged 5-10 and 10-15 per leg on 2 pasture herds. (Campbell). OKLAHOMA - Ranged 6-8 per head on dairy cattle in Payne County. (Okla. Coop. Sur.).

TABANID FLIES - NEW MEXICO - Tabanus spp. heavy on horses and cattle in Eddy County (Marek). OKLAHOMA - Tabanus spp. ranged up to 60 per head in east-central counties; averaged 0.5 per head in Noble County; moderate in Mayes County. Chrysops spp. heavy in east-central area. (Okla. Coop. Sur.).

BLACK FLIES (Simulium spp.) - GEORGIA - Heavy in Okefenokee Swamp. (Snoddy).

EUROPEAN EARWIG (Forficula auricularia) - UTAH - Annoying about many Garden City and Lakota homes and farms in Rich County and some Logan Canyon campgrounds in Cache County. (Knowlton).

LONE STAR TICK (Amblyomma americanum) - OKLAHOMA - Larvae decreasing and nymphs increasing in Cherokee and Muskogee Counties; range up to 1,000 per 25-foot drag. (Okla. Coop. Sur.).

CHIGGER MITES (Eutrombicula spp.) - OKLAHOMA - Annoying in eastern half of State. (Okla. Coop. Sur.).

CHICKEN MITE (Dermanyssus gallinae) - MISSISSIPPI - Very heavy in Oktibbeha County caged layer operations. Controls applied. (Combs).

BENEFICIAL INSECTS

LADY BEETLES - NEBRASKA - Ranged 1-8 (averaged 4) per 10 sweeps on Burt County alfalfa. (Keith, Schalk). NEW MEXICO - Ranged 3-5 per 50 sweeps in alfalfa north of Las Cruces, Dona Ana County. (Elson). TEXAS - Hippodamia convergens predaceous on greenbug in wheat research plots at Bushland, Potter County. (Daniels, Aug. 28). VIRGINIA - H. convergens adults and larvae abundant in alfalfa in Nottoway County; ranged 10-20 per 10 sweeps. (Isakson).

DAMSEL BUGS (Nabis spp.) - NEBRASKA - Averaged about 2 per 10 sweeps on Burt County alfalfa. (Keith, Schalk).

FLOWER BUGS (Orius spp.) - NEBRASKA - Averaged 1-3 per 10 sweeps on Burt County alfalfa. (Keith, Schalk).

LACEWINGS - NEBRASKA - Ranged 1-3 (averaged 2) per 10 sweeps on Burt County alfalfa. (Keith, Schalk). IOWA - Larvae and adults abundant in alfalfa in southeast area. (Iowa Ins. Sur.).

FEDERAL AND STATE PLANT PROTECTION PROGRAMS

GRASSHOPPERS - CALIFORNIA - Melanoplus sanguinipes defectus moderate on rangeland in Temecula, Riverside County. (Cal. Coop. Rpt.). NEW MEXICO - Control program on Lincoln County rangeland about complete; control excellent on Nogal Mesa and very good on lower areas. (Eubank). Mainly M. lakinus heavy on flowers and vegetables at Carrizozo and Capitan, Lincoln County. (Heninger). COLORADO - Found along sorghum field borders and margins in Adams County, up to 25 per square yard. (Lesser). WYOMING - Generally widespread throughout State this season; little interest in control exhibited by ranchers due to abundance of grass. MONTANA - Economic in portions of Yellowstone, Carbon, Big Horn, and Treasure Counties during July. Heavy in scattered areas of Hill, Blaine, Phillips, and Chouteau Counties. M. bivittatus heavy in borrow pits and margins adjoining southern Hill and northern Chouteau Counties. (PPC West. Reg.). NORTH DAKOTA - Adult survey completed in 30 counties. Threatening cropland in eastern Morton and Grant Counties, northern Sioux, southern Burleigh, and western Emmons Counties; M. differentialis dominant. Threatening small area of eastern McHenry and western Pierce Counties, M. sanguinipes dominant. Threatening northern sandhills area of Ransom and Richland Counties; includes cropland and about 7,500 acres of rangeland. M. bivittatus dominant cropland species in area. Grasshoppers light in west-central Golden Valley, eastern Dunn, eastern Adams, southeast Hettinger, eastern Ransom, northern Richland, and southeastern Cass Counties, and parts of Grant, Morton, Sioux, and Emmons Counties. (Brandvik). NEBRASKA - Ranged 10-15 per square yard of rangeland in Sioux and Dawes Counties. (Hagen, Andersen). Ranged 2-5 per 25 sweeps on Saunders County soybeans. (Keith, Jansen). IOWA - M. femurrubrum common in alfalfa and clover field margins in southeast area; ranged 1-8 per 10 sweeps. (Iowa Ins. Sur.). WISCONSIN - M. femurrubrum very low in most southeastern county alfalfa; average 0-1 per square yard in most fields; up to 3 per square yard in some southeastern county fields. (Wis. Ins. Sur.).

CARIBBEAN FRUIT FLY (Anastrepha suspensa) - FLORIDA - Larvae from pomegranate in dooryard at St. Petersburg, Pinellas County, August 24, for new host record. (Carroll). Adults trapped at Daytona Beach and New Smyrna Beach, Volusia County, August 23-29. (Pott).

CITRUS BLACKFLY (Aleurocanthus woglumi) - MEXICO - Biological Control Zone - Inspections of 23,217 trees on 91 properties in 4 municipios in southern Tamaulipas found 5,721 infested trees on 29 properties. Chemical Control Zone - Inspections of 58,912 trees on 914 properties in Nuevo Leon and Tamaulipas found 70 infested trees on 3 properties one mile northeast of Linares, Nuevo Leon. First and second sprays made on 1,681 trees on 2 properties; third spray applied to 5,048 trees on 6 other properties at Linares. Inspections of 1,536 trees on 116 properties in Baja California and Sonora found 2 infested properties involving about 2 acres at Hermosillo, Sonora. Infested leaves removed and destroyed. First control application made on these 2 properties. (PPC Mex. Reg., July Rpt.). TEXAS - Inspections negative in Cameron, Hidalgo, and Starr Counties during July. (PPC South. Reg.).

EUROPEAN CHAFER (Amphimallon majalis) - NEW YORK - Single adult trapped in Barton Township, Tioga County. This is a new county record. NEW JERSEY - Single adult collected in Port Elizabeth area of Union County. This is a new county record. (PPC East. Reg., July Rpt.).

GYPSY MOTH (Porthetria dispar) - MICHIGAN - Still no males taken this season. Final checks being made; traps being dismantled. (Moore)

JAPANESE BEETLE (Popillia japonica) - GEORGIA - Found for first time in Franklin County. SOUTH CAROLINA - Trapped for first time in Horry County. (PPC South. Reg., July Rpt.). KENTUCKY - Total of 21 beetles taken in 12 of 25 traps in Estill County first week of July. This is a new county record. (PPC Cent. Reg.). MICHIGAN - Adult collections continue heavy in Battle Creek area. Took 526 beetles from 412 traps on southeast, east, and northeast sides of city last week.

Took 148 beetles in 410 traps in rural Monroe and Lenawee Counties. Two new finds in Cass County at Cassopolis and Edwardsburg. Trapping at Lansing, Bay City, and Grand Rapids negative. (Moore).

MEXICAN FURIT FLY (Anastrepha ludens) - MEXICO - Total of 2,726 inspections made of 710 traps on 705 properties in municipios Ensenada, Tecate, and Tijuana, Baja California; 17 unmarked flies captured in Tijuana and Tecate, Examination of 8 pounds of fallen host fruits negative. Total of 6 native flies (3 males, 3 females) trapped in Tecate and Tijuana this season through July 19. Total of 3,275,000 sterile pupae placed at 70 locations in Tijuana and Tecate. Fly emergence averaged 87 percent. Approximately 1 percent of sterile flies recaptured. (PPC Mex. Reg.). ARIZONA - Trapping continued in Nogales and Tucson areas; no A. ludens found. CALIFORNIA - Many marked sterile flies released south of United States-Mexican border being trapped in San Diego County. No wild or unmarked A. ludens trapped during July. (PPC West. Reg.).

PINK BOLLWORM (Pectinophora gossypiella) - NEVADA - Total of 25 male moths taken in sex lure traps in Pahrump Valley, Nye County, August 21-28. (Nev. Coop. Rpt.). ARIZONA - Increasing in Yuma County. Inspections show 3-44 exit holes per 100 hard bolls examined in Pinal County. Building up in Graham and Maricopa Counties. (Ariz. Coop. Sur.). NEW MEXICO - Boll survey shows larvae present in Leasburg area (18 percent) to Radium Springs area (12 percent) in northern Dona Ana County. (Elson). Infestations ranged 0-20 percent in fields south of Las Cruces, Dona Ana County. (Campbell, Elson).

Weather continued from page 828.

WEATHER OF THE WEEK ENDING SEPTEMBER 4

HIGHLIGHTS: Last week brought a continuation of very warm and dry weather in the Pacific Northwest and of very cool conditions in central United States. The third week of heavy rains came to parts of Texas.

PRECIPITATION: Tropical Storm Katrina moved northeastward from Lower California bringing heavy rains to southwestern deserts--over two inches in Yuma, Arizona--late in the week. Rainfall amounts varied widely over the central and southern Great Plains. Heavy rains caused local flooding in the eastern Colorado foothills. Only light to moderate rains came to west Kansas but local flash floods followed falls of up to 8 inches in some eastern areas. Most Missouri stations received less than 0.25 inch; a few reported more than 1 inch while 4.88 inches fell at West Plains. Spotty heavy showers fell in Alabama, Georgia, and Florida. More heavy rains came to Texas. Most of the north-central and northeast received small amounts. Light rains in the Far Northwest were insufficient for noticeable improvement in crops or for the control of forest and range fires. Areas in Oregon have received no more than light sprinkles in at least 70 days.

TEMPERATURE: A large HIGH remained almost stationery over the Eastern United States spreading autumn chill from the Rocky Mountains to the Atlantic Ocean. Much of the central Mississippi Valley averaged 5° to 9° below normal for the fourth week. Illinois has averaged cooler than normal for 11 weeks. Morning temperatures over the North-central States dropped to the 40's and 50's. When the cold air reached the Gulf of Mexico on Sunday afternoon temperatures in Alabama remained mostly in the 60's. Summer heat continued over the Far West with temperatures 8° to 12° above normal from northern Nevada into Canada. Spokane, Washington, registered 100° on Wednesday. Early September heat affected the Los Angeles basin; weekly temperatures were 12° above normal at the Civic Center while the coastal strip remained cool. (Summary supplied by Environmental Data Service, ESSA.).

HAWAII INSECT REPORT

Turf, Pasture, Rangeland - BERMUDAGRASS MITE (Aceria neocynodonis) light to medium on Bermuda grass fairways of golf course at Kawaihae, Hawaii, for new island record. (LaPlante). No population increase of HUNTING BILLBUG (Sphenophorus venatus vestitus) or damage on Kikuyu grass pastures at Kaupalakua and Haiku, Maui. Mostly adults, scattered light to medium on Kikuyu grass pastures in Kohala District, Hawaii. Some areas with severe loss of rhizomes from previous grub activity, but grass appears healthy due to adequate soil moisture. Increase expected; much damage may result during prolonged dry periods. (Miyahira, LaPlante).

Vegetables - DIAMONDBACK MOTH (Plutella xylostella) larval damage moderate to heavy on head cabbage at Keokea and Ulupalakua; light to moderate at Kula. All stages of MELON FLY (Dacus cucurbitae) heavy and difficult to control on cucurbits at lower Kula, Maui. (Yamamoto).

Forest and Shade Trees - All stages of HEMISPHERICAL SCALE (Saissetia coffeae) severe on terminals of hau (Hibiscus tiliaceus) and on terminals and fruits of kukui (Aleurites moluccana) at Kona, Hawaii. (Yoshioka). BARNACLE SCALE (Ceroplastes cirripediformis) nymphs and adults light in 200 acres of passion-fruit at Kahului, Maui; heavy in scattered spots. All stages increasing rapidly on fiddle-wood trees at Koko Head, Oahu. (Miyahira, Funasaki).

General Pests - Light traps throughout Oahu indicate CHINESE ROSE BEETLE (Adoretus sinicus) still high at Waipahu with 144 trapped compared with average of 3 in other areas. (Higa).

Beneficial Insects - LANTANA HISPID (Uroplata girardi) larval mines and adults medium on lantana foliage at Halepiula, Hawaii. Insect established; first released in March. ROSY PREDATOR SNAIL (Euglandina rosea) light and scattered in and around giant African snail eradication site at Kahaluu area of Kona, Hawaii. (Yoshioka).

INSECT DETECTION

New State Records

A DARKLING BEETLE (Pyanisia tristis) - ALABAMA - Collected from pine lumber at Brookley Air Force Base, Mobile County, June 23, 1967, by W. T. Seibels and R. Goff. Det. by T. J. Spilman. (McQueen).

COMSTOCK MEALYBUG (Pseudococcus comstocki) - CALIFORNIA - Collected on mulberry in Porterville, Tulare County, August 23, 1967, by E. Crew. Det. by G. Buxton and confirmed by D. Miller. (p. 837).

New County and Island Records

YELLOW SCALE (Aonidiella citrina) - FLORIDA - Gilchrist County. (p. 836).

ELM LEAF BEETLE (Pyrrhalta luteola) - CALIFORNIA - Riverside County. UTAH - Millard County. NEW MEXICO - Chaves County. (p. 837).

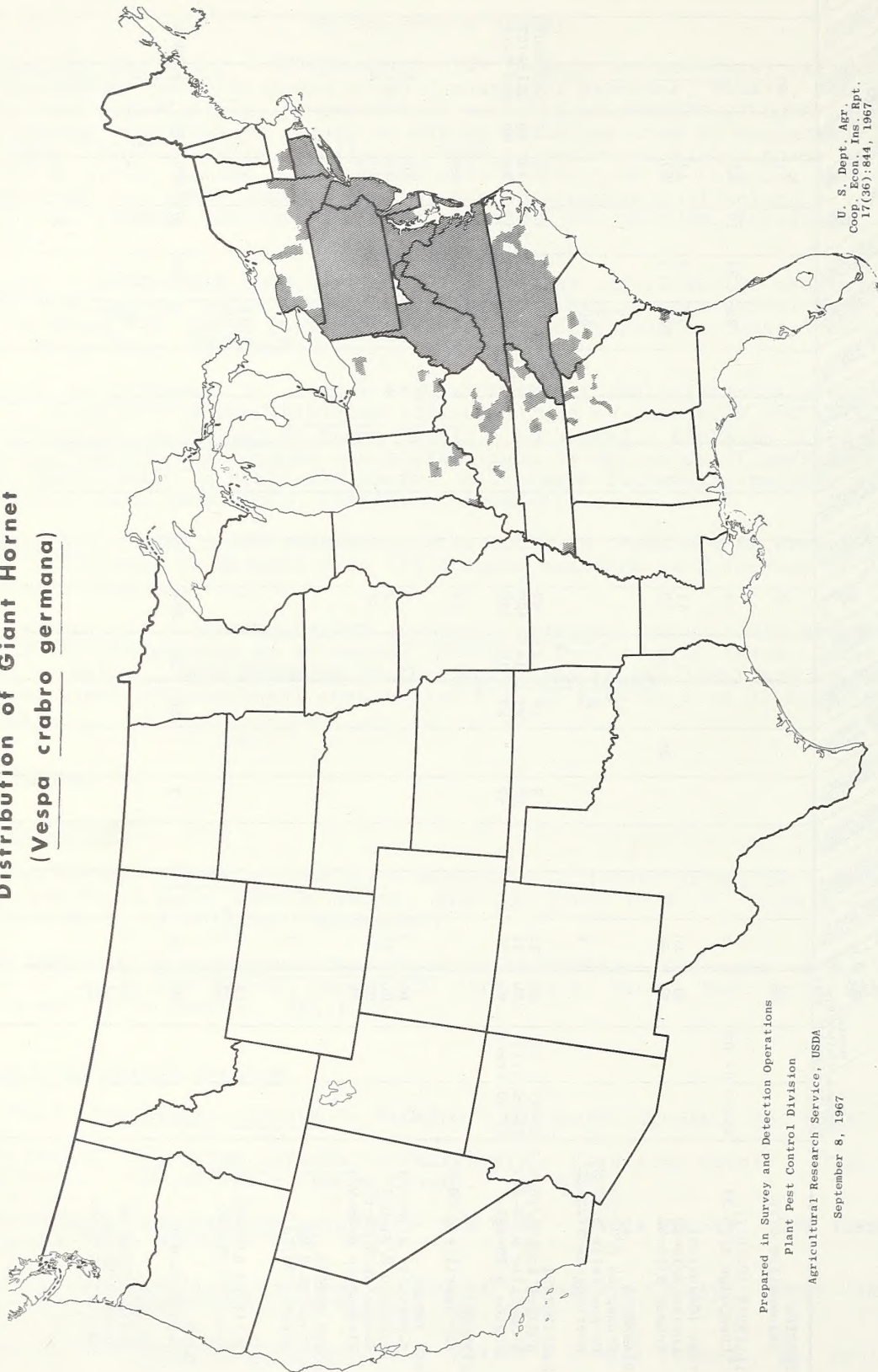
EUROPEAN CHAFFER (Amphimallon majalis) - NEW YORK - Tioga County. NEW JERSEY - Union County. (p. 840).

JAPANESE BEETLE (Popillia japonica) - GEORGIA - Franklin County. SOUTH CAROLINA - Horry County. KENTUCKY - Estill County. (p. 840).

BERMUDAGRASS MITE (Aceria neocynodonis) - HAWAII - Hawaii Island. (p. 842).

LIGHT TRAP COLLECTIONS		Temperature (° F.)	Precipitation (inches)	Type of trap	Aerotic action 0 = none 1 = incandescent BL = blacklight	Carposina pomonella (codling moth)	Choristoneura (army cutworm)	Estigmene acrea (salt-marsh caterpillar)	Farona diffusa (wheat head fly)	Peltia subterranea (granulate cutworm)	Heliothis virescens (tobacco budworm)	H. zea (bollworm, corn earworm, tomato fruitworm)	Loxostege sticticalis (garbden webworm)	Loxostege sticticalis (beet webworm)	Manduca quinquemaculata (tomato hornworm)	Manduca sexta (tobacco hornworm)	Ostrinia nubilalis (European corn borer)	Pentidoma saucia (variegated cutworm)	Podentia ornithogalli (peilow-striped armpworm)	Pseudotelia unispuncta (beet armpworm)	Spodoptera exigua (beet armpworm)	Spodoptera frugiperda (cabbage looper)	Crops	
FLORIDA	Gainesville 8/28			BL								1	6				3	29	34	17	97	1	23	
ILLINOIS (County)	Champaign 8/25-31	45-80	0-.02		8							4												
IOWA (Counties)	Louisa 8/19-22			BL	10							11						92	3	13				
	Monona 8/19-25			BL	46				26			10					463	4	50					
MINNESOTA	Crookston 8/23-25																3							
	Fergus Falls 8/23-25																2							
	Worthington 8/23-25				2					1	5						30							
MISSISSIPPI	Rolling Fork 8/26-9/1	58-87	2.63	BL	25			3		17	7	47				1	17			77	55	18	186	2608
	Stoneville 8/26-9/1	55-92	0.13	2BL	31			16		24	14	129					7			117	43	85	251	1707
	Tunica 8/26-9/1	52-90	trace	BL	61			40		99	10	186					53		1	119	36	40	214	2917
MISSOURI	Portageville 8/26-9/1											54												
NEW JERSEY	Cedarville 8/28-9/1			BL	3							9												
	Evesboro 8/28-9/1			BL	21							2												
	Hammononton 8/28-9/1			BL	16							37												
	Plainsboro 8/28-9/1			BL																				
NORTH DAKOTA	Bismarck 8/29																							
	Fargo 8/22,30				1																			
OHIO	Hilliard 8/24-30			BL	3							1												
	Wooster 8/24-30			BL	2				4															
TEXAS	Waco 8/26-9/1			BL	20			1		106	34	254												
WISCONSIN	Madison 8/24-29			BL	1																			
	Nenno 8/22-28			BL																				
	Oakfield 8/22-28			BL																				

Distribution of Giant Hornet
(Vespa crabro germana)



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